Amendments to the Claims:

There are no changes to the claims.

1. (Previously Presented): A method of forming a conductive metal silicide by reaction of metal with silicon, comprising:

providing a semiconductor substrate comprising an exposed elemental silicon-containing surface;

atomic layer depositing at least one of a nitride, boride, carbide, or oxide-comprising layer onto the exposed elemental silicon-containing surface to a thickness no greater than 15 Angstroms;

exposing the layer of thickness no greater than 15 Angstroms to plasma and depositing a conductive reaction layer comprising at least one of a first elemental metal or metal-rich silicide onto the plasma-exposed layer; and

reacting said first metal or metal-rich silicide of the conductive reaction layer with the elemental silicon of the substrate effective to form a conductive metal silicide-comprising contact region electrically connecting the conductive reaction layer with the substrate.

2. (Previously Presented): The method of claim 1, wherein the atomic layer depositing is of a nitride-comprising layer.

3. (Previously Presented): The method of claim 2, wherein the nitride-comprising layer comprises a nitride selected from the group consisting of tantalum nitride, titanium nitride, tungsten nitride, boron nitride, aluminum nitride, hafnium nitride, and mixtures thereof.

4. (Previously Presented): The method of claim 2, wherein the nitride-comprising layer is void of Si_3N_4.

5. (Previously Presented): The method of claim 1, wherein the atomic layer depositing is of a boride-comprising layer.

6. (Previously Presented): The method of claim 5, wherein the boride-comprising layer comprises a boride selected from the group consisting of tungsten boride, titanium boride, and mixtures thereof.

7. (Previously Presented): The method of claim 1, wherein the atomic layer depositing is of a carbide-comprising layer.

8. (Previously Presented): The method of claim 7, wherein the carbide-comprising layer comprises a carbide selected from the group consisting of tantalum carbide, titanium carbide, silicon carbide, and mixtures thereof.

9. (Previously Presented): The method of claim 1, wherein the atomic layer depositing is of an oxide-comprising layer.

10. (Previously Presented): The method of claim 9, wherein the oxide-comprising layer comprises an oxide selected from the group consisting of rhodium oxide, ruthenium oxide, iridium oxide, and mixtures thereof.

11. (Previously Presented): The method of claim 9, wherein the oxide-comprising layer is void of SiO_2.

12. (Previously Presented): The method of claim 1, wherein the at least one of a nitride, boride, carbide, or oxide is of a second metal which is different from said first metal of the conductive reaction layer.

13. (Previously Presented): The method of claim 1, wherein the at least one of a nitride, boride, carbide, or oxide is of a second metal which is the same as said first metal of the conductive reaction layer.

14. (Previously Presented): The method of claim 1, wherein the layer of thickness no greater than 15 Angstroms is of a thickness no less than 5 Angstroms.

15. (Previously Presented): The method of claim 1, wherein the layer of thickness no greater than 15 Angstroms is of a thickness from 5 Angstroms to 10 Angstroms.

16. (Previously Presented): The method of claim 1, wherein the exposed elemental silicon-containing surface comprises polycrystalline silicon.

17. (Previously Presented): The method of claim 1, wherein the exposed elemental silicon-containing surface comprises monocrystalline silicon.

18. (Previously Presented): The method of claim 17, wherein the monocrystalline silicon comprises epitaxially-grown silicon.

19. (Previously Presented): The method of claim 1, wherein the exposing occurs during the depositing.

20. (Previously Presented): The method of claim 1, wherein the exposing only occurs during the depositing.

21. (Previously Presented): The method of claim 1, wherein at least some of the exposing occurs prior to and separate from the depositing.

22. (Previously Presented): The method of claim 21, wherein all of the exposing occurs prior to and separate from the depositing.

23. (Previously Presented): The method of claim 1, wherein the conductive reaction layer has an outer portion that at least predominately comprises said first elemental metal.

24. (Previously Presented): The method of claim 23, wherein the conductive reaction layer outer portion consists essentially of said first elemental metal.

25. (Previously Presented): The method of claim 1, wherein the conductive reaction layer has an outer portion that at least predominately comprises said metal-rich silicide.

26. (Previously Presented): The method of claim 25, wherein the conductive reaction layer outer portion consists essentially of said metal-rich silicide.

27. (Previously Presented): The method of claim 1, wherein the reacting occurs during the depositing.

28. (Previously Presented): The method of claim 1, wherein the reacting occurs after the depositing.

29. (Previously Presented): The method of claim 28, wherein the reacting does not occur during the depositing.

30. (Previously Presented): The method of claim 1, wherein the exposing and the reacting occur during the depositing.

31. (Previously Presented): The method of claim 1, wherein the deposited layer of thickness no greater than 15 Angstroms has an as-deposited resistance greater than 1000 microohms-cm, the exposing and reacting being effective to reduce resistance of the deposited layer of thickness no greater than 15 Angstroms to less than 1000 microohms-cm.

32. (Previously Presented): The method of claim 31, wherein the exposing and reacting are effective to reduce resistance of the deposited layer of thickness no greater than 15 Angstroms to less than 800 microohms-cm.

33. (Previously Presented): The method of claim 31, wherein:

the layer of thickness no greater than 15 Angstroms is of a thickness from 5 Angstroms to 10 Angstroms;

the exposing occurs during the depositing; and

the reacting occurs during the depositing.

34. (Previously Presented): The method of claim 1, wherein the layer of thickness no greater than 15 Angstroms comprises tantalum nitride.

35. (Previously Presented): The method of claim 34, wherein the conductive reaction layer comprises at least one of titanium and titanium-rich titanium silicide.

36. (Previously Presented): The method of claim 34, wherein the tantalum nitride is atomic layer deposited from precursors comprising pentakis-dimethylamido-tantalum and ammonia.

37. (Previously Presented): The method of claim 34, wherein the layer of thickness no greater than 15 Angstroms is of a thickness from 5 Angstroms to 10 Angstroms.

38. (Previously Presented): The method of claim 34, wherein the conductive reaction layer has an outer portion that at least predominately comprises said first elemental metal.

39. (Previously Presented): The method of claim 34, wherein the conductive reaction layer has an outer portion that at least predominately comprises said metal-rich silicide.

40. (Previously Presented): The method of claim 1, wherein the conductive metal silicide-comprising contact region has a thickness from 5 Angstroms to 100 Angstroms.

41. (Previously Presented): The method of claim 1, wherein the exposing, depositing and reacting are effective to form all conductive metal silicide formed over the substrate by the reacting to have no more than 10% thickness variation as determined of a thickest portion of said conductive metal silicide formed by the reacting.

42. (Previously Presented): The method of claim 1, wherein the exposing, depositing and reacting are effective to form all conductive metal silicide formed over the substrate by the reacting to have no more than 1% thickness variation as determined of a thickest portion of said conductive metal silicide formed by the reacting.

43. (Previously Presented): The method of claim 1, wherein the exposing, depositing and reacting are effective to form all conductive metal silicide formed over the substrate by the reacting to have from 1% to 3% thickness variation as determined of a thickest portion of said conductive metal silicide formed by the reacting.

44. (Previously Presented): The method of claim 1, wherein the conductive reaction layer is of a thickness which is greater than that of the layer of thickness no greater than 15 Angstroms.

45. (Previously Presented): The method of claim 1, wherein the exposed elemental silicon-containing surface is received within a contact opening formed within an insulative layer.

46. (Previously Presented): A method of forming a conductive metal silicide by reaction of metal with silicon, comprising:

providing a semiconductor substrate comprising an exposed elemental silicon-containing surface;

atomic layer depositing a tantalum nitride-comprising layer onto the exposed elemental silicon-containing surface to a thickness no greater than 15 Angstroms, the deposited tantalum nitride-comprising layer having a resistance greater than 1000 microohms-cm;

exposing the tantalum nitride-comprising layer of thickness no greater than 15 Angstroms to plasma and depositing a conductive reaction layer comprising at least one of an elemental metal or metal-rich silicide onto the plasma-exposed layer; and

reacting said metal or metal-rich silicide of the conductive reaction layer with the elemental silicon of the substrate effective to form a conductive metal silicide-comprising contact region over the tantalum nitride-comprising layer which electrically connects the conductive reaction layer with the substrate; the exposing, depositing and reacting being effective to reduce resistance of the tantalum nitride-comprising layer to less than 1000 microohms-cm.

47. (Previously Presented): The method of claim 46, wherein the tantalum nitride-comprising layer as-deposited is of a thickness no less than 5 Angstroms.

48. (Previously Presented): The method of claim 46, wherein the tantalum nitride-comprising layer as-deposited is of a thickness from 5 Angstroms to 10 Angstroms.

49. (Previously Presented): The method of claim 46, wherein the exposing occurs during the depositing.

50. (Previously Presented): The method of claim 46, wherein the exposing only occurs during the depositing.

51. (Previously Presented): The method of claim 46, wherein at least some of the exposing occurs prior to and separate from the depositing.

52. (Previously Presented): The method of claim 51, wherein all of the exposing occurs prior to and separate from the depositing.

53. (Previously Presented): The method of claim 46, wherein the conductive reaction layer has an outer portion that at least predominately comprises the elemental metal.

54. (Previously Presented): The method of claim 46, wherein the conductive reaction layer has an outer portion that at least predominately comprises the metal-rich silicide.

55. (Previously Presented): The method of claim 46, wherein the reacting occurs during the depositing.

56. (Previously Presented): The method of claim 46, wherein the reacting occurs after the depositing.

57. (Previously Presented): The method of claim 56, wherein the reacting does not occur during the depositing.

58. (Previously Presented): The method of claim 46, wherein the exposing and the reacting occur during the depositing.

59. (Previously Presented): The method of claim 46, wherein the exposing and reacting are effective to reduce resistance of the tantalum nitride-comprising layer to less than 800 microohms-cm.

60. (Previously Presented): The method of claim 46, wherein:

the layer of thickness no greater than 15 Angstroms is of a thickness from 5 Angstroms to 10 Angstroms;

the exposing occurs during the depositing; and

the reacting occurs during the depositing.

61. (Previously Presented): The method of claim 46, wherein the conductive metal silicide-comprising contact region has a thickness from 5 Angstroms to 100 Angstroms.

62. (Previously Presented): The method of claim 46, wherein the exposing, depositing and reacting are effective to form all conductive metal silicide formed over the substrate by the reacting to have no more than 10% thickness variation as determined of a thickest portion of said conductive metal silicide formed by the reacting.

63. (Previously Presented): The method of claim 46, wherein the exposing, depositing and reacting are effective to form all conductive metal silicide formed over the substrate by the reacting to have no more than 1% thickness variation as determined of a thickest portion of said conductive metal silicide formed by the reacting.

64. (Previously Presented): The method of claim 46, wherein the exposing, depositing and reacting are effective to form all conductive metal silicide formed over the substrate by the reacting to have from 1% to 3% thickness variation as determined of a thickest portion of said conductive metal silicide formed by the reacting.

65. (Previously Presented): The method of claim 46, wherein the conductive reaction layer is of a thickness which is greater than that of the tantalum nitride-comprising layer.

66. (Previously Presented): The method of claim 46, wherein the exposed elemental silicon-containing surface is received within a contact opening formed within an insulative layer.